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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/731,233

12/09/2003

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BOC9-2003-0041 (411)

4914

7590 02/26/2009
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EXAMINER

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ART UNIT

PAPER NUMBER

3628

MAIL DATE

DELIVERY MODE

02/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Status of Claims

1. This action is in reply to the response filed on 1 December 2008.
2. Claim 1 has been amended.
3. Claims 1 and 7-8 are currently pending and have been examined.

Response to Arguments

4. Regarding the previous 35 USC § 112, 1st paragraph and 2nd paragraph rejections, Applicant has successfully amended the claims, and, accordingly, the rejections have been rescinded.
5. Applicant's arguments filed on 1 December 2008 have been fully considered but they are not persuasive.
6. First, Applicant argues the references do disclose the "*remaining unflown ticket value*". Applicant specifically argues Slivka that Slivka discloses only the disrupted flight, and points to a passage in Slivka (§ 0037) that states "Accordingly, in some instances it may be difficult to assess the exact amount of a given segment of an itinerary associated with the disrupted flight because it might be a prorated value of a larger itinerary." Examiner respectfully disagrees. First, "a remaining unflown ticket value", read in its broadest reasonable interpretation, does not require the entirety of the remaining value, and accordingly only a trip segment discloses the limitation. Moreover, the limitation specifically states, "in **some** instances it **may** be difficult to assess the exact amount of a given segment of an itinerary associated with the disrupted flight because it **might** be a prorated value of a larger itinerary" (emphasis added). It would have been obvious to one of ordinary skill in the art at the time of the invention that if in *some* instances it *might* be a larger itinerary, then in many instances it will not be part of a larger itinerary, in which case Slivka discloses the entire remaining unflown value.

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7. Applicant also argues the references do not disclose "meals and hotel rooms". Specifically, Applicant argues that Pucci discloses airlines offering travel vouchers to passengers who are willing to give up their seat in an overbooking system, and therefore has nothing to do with passenger reaccommodation. Examiner disagrees. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the present case, Slivka in ¶ 0015 discloses a method "minimizes the provider cost of moving passengers to a different airline or an ancillary travel provider", and states "ancillary travel services such as hotel . . ." and but does not specifically identify that cost. However, Orenstein, in p.1, ¶ 003, discloses a system of rebooking that "put a premium on . . . the cost incurred by [the airline]", and Pucci discloses that the cost incurred to an airline can include meals and hotel rooms. The combination, as a whole, discloses that rebooking costs, which can be minimized by the airline, include the costs towards other airlines as well as meals and hotel rooms.
8. Applicant further argues the references do not disclose "a passenger lifetime value". Applicant argues "'a passenger lifetime value' in the sense of the present invention is a much more complex concept and takes into consideration of other factors besides the frequent flier information and the average cost of the passenger's travel history". Examiner respectfully disagrees. Slivka, in ¶ 0035 discloses a passenger history including "a number of flights a passenger has purchased on a particular carrier over a period of time (i.e. frequent flier information)" and "the average cost of the passenger's travel history". Applicant's arguments that the "passenger lifetime value" is more complex is not persuasive, because the claim, read in its broadest reasonable interpretation, encompasses frequent flier and average cost, as disclosed in the Slivka reference. Moreover, although the specification is not to be read into the claims, the only examples of a "passenger lifetime value", in ¶ 0017 and ¶ 0021, show the history of ticket purchases and frequent flier information, so Examiner does not agree the claims, as written, are more complex than the

disclosure in Slivka. In addition, Slivka, in ¶ 0035, discloses using this data as a rule for rearranging candidates.

9. Regarding “customer relationship management data”, Applicant argues that CRM data that “help an enterprise manage customer relationships in an organized way”. The entirety of Slivka manages customer relationships in an organized way by using prior customer data and profiles to aid in rebooking of flights. Specifically, Slivka, ¶ 0035, discloses a “passenger history, behavior, and profile databases”, and ¶ 0039 discloses calculating a passenger value, which is disclosed as the only action performed by the CRM in the specification (¶ 0020 “the passenger value (PAX) as determined by the CRM system”). In addition, although Slivka does not specifically disclose the words “customer relationship management data”, Campbell, in at least ¶ 0046 and ¶ 0050, does. Moreover, Campbell discloses much of the same information in its CRM module as Slivka, including profile information, frequent travel information, destination information. Moreover, Slivka, in ¶ 0035 discloses that “One skilled in the art would realize that other types of passenger information may be maintained in these and other databases”, which would include a CRM database as disclosed in Campbell. Finally, the Applicant suggests that the CRM system of Campbell would not be appropriate for flight re-accommodation because of the vast amount of information in the Campbell database, but no such slowness of the Campbell system has been shown, nor do the instant claims reflect the importance of processing speed. Moreover, the Slivka reference discloses large amounts of customer data including a profile history as well as “ancillary services . . . such as hotel and car reservations” (Slivka ¶ 0006), but yet it is used for exactly the same purpose (i.e. rebooking) as the instant application.
10. In addition, see the updated rejections below.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims 1, 7-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A claimed process is eligible for patent protection under 35 U.S.C. § 101 if:

"(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. See Benson, 409 U.S. at 70 ('Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines. '); Diehr, 450 U.S. at 192 (holding that use of mathematical formula in process 'transforming or reducing an article to a different state or thing' constitutes patent-eligible subject matter); see also Flook, 437 U.S. at 589 n.9 ('An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing' '); Cochrane v. Deener, 94 U.S. 780, 788 (1876) ('A process is...an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.').⁷ A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article." (*In re Bilski*, 88 USPQ2d 1385, 1391 (Fed. Cir. 2008))

Also noted in *Bilski* is the statement, "Process claim that recites fundamental principle, and that otherwise fails 'machine-or-transformation' test for whether such claim is drawn to patentable subject matter under 35 U.S.C. §101, is not rendered patent eligible by mere field-of-use limitations; another corollary to machine-or-transformation test is that recitation of specific machine or particular transformation of specific article does not transform unpatentable principle into patentable process if recited machine or transformation constitutes mere 'insignificant post-solution activity.'" (*In re Bilski*, 88 USPQ2d 1385, 1385 (Fed. Cir. 2008)) Examples of insignificant post-solution activity include data gathering and outputting. Furthermore, the machine or transformation must impose meaningful limits on the scope of the method claims in order to pass the machine-or-transformation test. Please refer to the USPTO's "Guidance for Examining Process Claims in view of *In re Bilski*" memorandum dated January 7, 2009, http://www.uspto.gov/web/offices/pac/dapp/opla/documents/bilski_guidance_memo.pdf .

It is also noted that the mere recitation of a machine in the preamble in a manner such that the machine fails to patentably limit the scope of the claim does not make the claim statutory under 35 U.S.C. § 101, as seen in the Board of Patent Appeals Informative Opinion *Ex parte Langemyr et al.* (Appeal 2008-1495), <http://www.uspto.gov/web/offices/dcom/bpai/its/fd081495.pdf>.

Claims 1, 7-8 are not tied to a particular machine or apparatus nor do they transform a particular article into a different state or thing, thereby failing the machine-or-transformation test; therefore, claims 1, 7-8 are non-statutory under § 101.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Examiner's Note: The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully

the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

15. Claims 1, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slivka et al. (U.S. Pub. 2003/0225600 A1) in view of Campbell et al. (U.S. Pub. 2003/0144867 A1) in view of Orenstein (Orenstein, David; Computerworld v32n39, pp: 24; Sep. 28, 1998) in view of Pucci (Pucci, Carol; Bumping happens, so make it work for you: Be justly compensated; National Post; July 7, 2001).

Claim 1:

Slivka, as shown, discloses the following limitation(s):

- *identifying passengers who must be re-accommodated* (see at least Slivka ¶ 0014);
- *for each identified passenger, obtaining passenger data including*
 - *a frequent flyer status* (see at least Slivka ¶ 0024, ¶ 0035),
 - *a remaining unflown ticket value* (see at least Slivka ¶¶ 0037-0038 disclosing calculating and using an unflown ticket value),
 - *a passenger lifetime value to the airline* (see at least Slivka ¶ 0014 “determined business value”; ¶ 0015 “passenger’s aggregate business”; ¶ 0035 showing a total number of flights history and an average cost of that history), and
 - *flight operations data including flight schedule and seat availability on the airline and competitor airlines* (see at least Slivka ¶ 0032; ¶ 0036);
- *processing the passenger data and the flight operations data based on a set of rules including at least one among a rule for arranging said identified passengers according to a descending revenue impact to the airline, a rule for arranging said identified passengers according to passenger frequent flyer status, and a rule for arranging said identified passengers according to a lifetime value of each passenger*, (see at least Slivka ¶ 0039);

- *displaying re-accommodation candidates as a result of the processing* (see at least Slivka ¶ 0028, “monitor 115”; Slivka teaches monitor 115 can provide information to one or more external entities including a travel provider or travel agent service, but does not explicitly teach displaying the re-accommodation candidates. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Slivka to have included displaying the re-accommodation candidates for the advantage of allowing a travel provider or agent to visually track and confirm all of the passengers that need to be re-accommodated); and
- *selecting passengers for re-accommodation from the re-accommodation candidates* (see at least Fig. 2: “235”; Fig. 3; Slivka ¶ 0044-0045).

Regarding the limitation:

- *customer relationship management data*.

Slivka, in at least ¶ 0035 discloses a “passenger history, behavior, and profile databases” but does not specifically disclose “customer relationship management”. However, Campbell, in at least ¶ 0046 and ¶ 0050, discloses customer relationship management.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and machine-readable storage of Slivka to have included customer relationship management data as disclosed by Campbell for the advantage of analyzing and predicting future travel spending (Campbell ¶ 0050). Moreover, it would have been obvious to one of ordinary skill in the art at the time of the invention to include CRM as taught by Campbell in the system of Slivka, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding the limitation:

- *a rebooking cost . . . wherein the rebooking cost includes payments required to another airline and any cost of meal and hotel reimbursements*

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Slivka, ¶ 0015, discloses “minimizes the provider cost of moving passengers to a different airline or an ancillary travel provider”, and states “ancillary travel services such as hotel . . .” and but does not specifically identify that cost. However, Orenstein, in at least the p. 1, ¶ 3, discloses a passenger re-accommodation system that minimizes costs, and Pucci, in at least p. 2, ¶ 10 discloses passenger re-booking costs can include meals and hotel rooms. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Slivka/Campbell to have included a rebooking cost of each passenger as disclosed by Orenstein and Pucci because the method “minimizes the provider cost of moving passengers to a different airline or an ancillary travel provider” (Slivka ¶ 0015).

Claim 7:

Slivka/Cambell/Smith, as shown above, discloses the limitations of claim 1. In addition, Slivka also discloses the following limitation(s):

- *wherein said passenger data comprises re-accommodation data* (see at least Slivka ¶ 0035, “profile status of the passenger”; ¶ 0036, “...re-accommodation driver 111 may retrieve from operations database 118 seat availability information associated with each flight included in the flight schedule information.”).

Claim 8:

Slivka/Cambell/Smith, as shown above, discloses the limitations of claim 1 and 13. In addition, Slivka also discloses the following limitation(s):

- *wherein the processing step comprises scoring passengers based on the set of rules, and displaying the score of each passenger* (Slivka: paragraphs 0026, “...the present invention may also employ rules that rank certain types of passengers.”; 0028, “monitor 115”).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Kevin H. Flynn** whose telephone number is **571.270.3108**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **John W. Hayes** can be reached at **571.272.6708**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

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or faxed to **571-273-8300**.

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Examiner, Art Unit 3628
23 February 2009

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